



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,091	12/31/2001	Takanari Takagaki	110983	5867

25944 7590 06/19/2003

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

GREENE, JASON M

ART UNIT PAPER NUMBER

1724

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,091

Applicant(s)

TAKAGAKI, TAKANARI

Examiner

Jason M. Greene

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-20 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 8 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 and 4. 6) ☐ Other: .

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Schneider et al.

With regard to claim 1, Schneider et al. discloses a filter comprising a filter body (2) and a seal member (5) fused to a peripheral edge portion of the filter body, by being fused to fibers that form the filter body when the fibers are in a semi-melted state in Fig. 2 and col. 2, lines 1-59. Since Schneider et al. discloses the fibers forming the filter body and the seal member being partially melted and welded together, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-melted state.

With regard to claim 2, Schneider et al. discloses the seal member having an engaging portion (not numbered, portion of 5 which melts during the welding process) that engages with the semi-melted fibers in Fig. 2 and col. 2, lines 1-59.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Published International Application WO 00/18489.

With regard to claim 1, WO 00/18489 discloses a filter comprising a filter body (2) and a seal member (5) fused to a peripheral edge portion of the filter body, by being fused to fibers that form the filter body when the fibers are in a semi-melted state in Fig. 2 and lines 1-4 of the English language abstract. Since the fibers forming the filter body and the seal member are partially melted and welded together, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-melted state.

With regard to claim 2, WO 00/18489 discloses the seal member having an engaging portion (not numbered, portion of 5 which melts during the welding process) that engages with the semi-melted fibers in Fig. 2 and lines 1-4 of the English language abstract.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama et al.

With regard to claim 1, Nakayama et al. discloses a filter (100) comprising a filter body (120) and a seal member (140) fused to a peripheral edge portion of the filter body, by being fused to fibers that form the filter body when the fibers are in a semi-molten state in Fig. 18 and col. 10, lines 6-28. Since the seal member is formed by thermally compressing the edge portion of the filter body such that a portion of the fibers

Art Unit: 1724

at the interface between the filter body and the seal member partially melt, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-molten state.

With regard to claim 2, Nakayama et al. discloses the seal member having an engaging portion (not numbered, portion of the seal member which melts during the welding process) that engages with the semi-melted fibers in Fig. 18 and col. 10, lines 6-28.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Published patent Application JP 8-38834 in view of Nakayama et al.

With regard to claim 3, JP 8-38834 discloses a filter comprising a filter body formed by layering semi-melted fibers (13) over a forming surface (2,11,12), and a seal

Art Unit: 1724

member (153) fused to a peripheral edge portion of the filter body in Figs. 1-7 and page 1, line 1 to page 6, line 36 of the English language translation.

JP 8-38834 does not explicitly disclose the seal member being fused to the peripheral edge portion of the filter body by being fused to fibers that form the filter body when the fibers in a semi-molten state. While JP 8-38834 explicitly teaches the seal portion being formed by compressing the peripheral portion of the filter body in Fig. 7 and page 4, lines 31-41 of the English language translation, JP 8-38834 does not explicitly teach heating the peripheral portion such that fibers along the peripheral portion are in a semi-molten state.

Nakayama et al. teaches a similar filter (100) wherein the seal member (140) is formed by compressing and heating the peripheral portion of the filter body (120) such that seal member is fused to the peripheral edge portion of the filter body when the fibers in a semi-molten state in Fig. 18 and col. 10, lines 6-28. Since the seal member is formed by thermally compressing the edge portion of the filter body such that a portion of the fibers at the interface between the filter body and the seal member partially melt, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-molten state.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the fusing of the seal member to the semi-melted fibers of Nakayama et al. into the filter of JP 8-38834 to increase the strength and sealing performance of the seal member, as suggested by Nakayama et al. in col. 10, lines 23-28.

With regard to claim 4, Nakayama et al. discloses the seal member having an engaging portion (not numbered, portion of the seal member which melts during the welding process) that engages with the semi-melted fibers in Fig. 18 and col. 10, lines 6-28.

With regard to claim 5, JP 8-38834 discloses at least a portion (12) of the forming surface being formed by a member that is fusable to the semi-melted fibers in page 4, lines 6-12 of the English language translation. Since the upper portion of the forming surface (12) is a nonwoven fabric formed from polyester, the polyester semi-melted fibers are seen as being fusable to at least a portion of the forming surface.

With regard to claim 6, JP 8-38834 discloses the filter body including a filtering portion (11,12,13) and the member fusable (12) to the semi-melted fibers forming a portion of the filtering portion in page 1, line 1 to page 6, line 36 of the English language translation.

With regard to claim 7, JP 8-38834 discloses the member (12) fusable to the semi-melted fibers being a non-woven fabric in page 4, lines 6-12 of the English language translation.

Art Unit: 1724

With regard to claim 9, JP 8-38834 discloses at least a portion of the forming surface being a forming surface of a die (2) for forming the filter in page 1, line 1 to page 6, line 36 of the English language translation.

Allowable Subject Matter

8. Claims 11-20 are allowed.

9. Claims 8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 8, the prior art made of record does not teach or fairly suggest the filter of claim 5 wherein at least a portion of the seal member is provided between the semi-melted fibers and the member fusable to the semi-melted fibers.

With regard to claim 10, the prior art made of record does not teach or fairly suggest the filter of claim 3 further comprising a member that is fusable to the semi-melted fibers and that is disposed on the forming surface, wherein at least a portion of

the seal member is provided between the semi-melted fibers and the member fusable to the semi-melted fibers.

With regard to claim 11, JP 8-38834 discloses a production method for a filter comprising forming a filter body by layering semi-melted fibers (13) over a forming surface (2,11,12) in Figs. 1-7 and page 1, line 1 to page 6, line 36 of the English language translation.

The prior art made of record does not teach or fairly suggest a production method for a filter comprising disposing a seal member over a forming surface, and subsequently forming a filter body by layering semi-melted fibers over the forming surface and the seal member. The prior art made of record also fails to teach or fairly suggest a filter made using such a process.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Takagaki et al. '827, Oda et al., Takagaki '544, Thornton et al., and McNaughton references disclose similar filters.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (703)

Art Unit: 1724

308-6240. The examiner can normally be reached on Tuesday - Friday (7:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (703) 308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

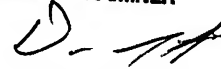
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jason M. Greene
Examiner
Art Unit 1724



jmg
June 13, 2003

DUANE SMITH
PRIMARY EXAMINER


6-16-03